

## WHAT WE CLAIM ARE:

1. A musical data performance system comprising:  
a first changing pattern generator that generates a first changing pattern by combining a plurality of note lengths; and  
5 an effect giving device that gives an effect to a tone signal in accordance with the generated first changing pattern.
2. A music data performance system according to claim 1, further comprising:  
10 a plurality of sound reproduction channels;  
a second changing pattern generator that generates different second changing patterns for at least two different channels of said plurality of sound reproduction channels, by combining a plurality of note lengths;  
a third changing pattern generator that generates third changing  
15 patterns by synthesizing the first changing pattern and the second changing patterns; and wherein  
the effect giving device gives an effect to a tone signal in accordance with the generated third changing patterns.
- 20 3. A music data performance system according to claim 2, wherein the changing patterns can be set by a measure as a unit and used repeatedly.
4. A music data performance system according to claim 2, wherein the second changing patterns are for a left-channel and a right-channel of sound  
25 reproduction channels.

5. A music data performance system according to claim 2, wherein the changing patterns are sound reproduction patterns.

6. A music data performance system according to claim 5, wherein said  
5 plurality of note lengths are positive note lengths and negative note lengths, and said plurality of note lengths at a same timing are added.

7. A music data performance system according to claim 5, wherein levels  
of said plurality of note lengths are in a range between a maximum sound  
10 reproduction level and a negative of the maximum sound reproduction level.

8. A musical data performance system comprising:

a first changing pattern generator that generates a first changing  
pattern by combining a plurality of note lengths;

15 a lower limit altering device that alters a lower limit value of a parameter regarding reproduction of the changing pattern, without altering an upper limit value; and

an effect giving device that gives an effect to a tone signal in  
accordance with the altered changing pattern.

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9. A music data performance system according to claim 8, further comprising:

a plurality of sound reproduction channels;

a lower limit altering device that alters a lower limit value of a parameter  
25 regarding reproduction of the first changing pattern, without altering an upper limit value;

a second changing pattern generator that generates different second changing patterns for at least two different channels of said plurality of sound reproduction channels, by combining a plurality of note lengths;

a third changing pattern generator that generates third changing  
5 patterns by synthesizing the first changing pattern and the second changing patterns; and wherein

the effect giving device gives an effect to a tone signal in accordance with the generated third changing patterns.

10 10. A music data performance system according to claim 9, wherein the changing patterns can be set by a measure as a unit and used repeatedly.

11. A music data performance system according to claim 9, wherein the  
second changing patterns are for a left-channel and a right-channel of sound  
15 reproduction channels.

12. A music data performance system according to claim 9, wherein the changing patterns are sound reproduction patterns.

20 13. A music data performance system according to claim 12, wherein said plurality of note lengths are positive note lengths and negative note lengths, and said plurality of note lengths at a same timing are added.

14. A music data performance system according to claim 12, wherein  
25 levels of said plurality of note lengths are in a range between a maximum sound reproduction level and a negative of the maximum sound reproduction level.

15. A music data performance system according to claim 12, wherein said lower limit of said plurality of note lengths can be set in a range between 0(no sound) and 1(maximum sound).

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16. A music data performance system according to claim 12, wherein middle levels of said plurality of note lengths are changed in accordance with a change in said lower limit.

10 17. A musical data performance method comprising the steps of:  
(a) generating a first changing pattern by combining a plurality of note lengths; and  
(b) giving an effect to a tone signal in accordance with the generated first changing pattern.

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18. A musical data performance method comprising the steps of:  
(a) generating a first changing pattern by combining a plurality of note lengths;  
(b) altering a lower limit value of a parameter regarding reproduction of  
20 the changing pattern, without altering an upper limit value; and  
(c) giving an effect to a tone signal in accordance with the altered changing pattern.

19. A program that a computer executes to realize a music data  
25 performance process, comprising the instructions of:  
(a) generating a first changing pattern by combining a plurality of note

lengths; and

(b) giving an effect to a tone signal in accordance with the generated first changing pattern.

5 20. A program that a computer executes to realize a music data performance process, comprising the instructions of:

(a) generating a first changing pattern by combining a plurality of note lengths;

(b) altering a lower limit value of a parameter regarding reproduction of  
10 the changing pattern, without altering an upper limit value; and

(c) giving an effect to a tone signal in accordance with the altered changing pattern.